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U. S. Department of Agriculture

Housekeepers' Chat

Monday, February 4, 1929

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NOT FOR PUBLICATION

Subject: Hot Beds and Cold Frames. Information prepared by W. R. Beattie, Bureau of Plant Industry, U. S. D. A.

Bulletin available: "The City Home Garden."

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Saturday afternoon I made a social call on W. R. B., the garden adviser. That is, I intended it for a social call, but about five minutes after my arrival, we were talking shop. W. R. B. showed me some pictures of lettuce -- beautiful crisp green lettuce, with a faint tinge of pink at the tips of the leaves.

"I wish I knew more about gardening," I said. "I'd like to make a hotbed, or whatever you call it, so that I could have lettuce and radishes early this spring. I hate to wait until July or August, to have salad plants from my own garden. Isn't there some way I could start vegetables, and also flowers, this month?"

"Certainly there is," said W. R. B. "Get Uncle Ebenezer to make you a hotbed. In the hotbed, you can grow lettuce, radishes, carrots, and beets. When it comes to starting early plants, for planting in the garden, I recommend tomatoes, peppers, eggplant, cabbage, cauliflower, celery, and lettuce. As for flowers, it isn't necessary to start many of the flowering plants in a hotbed, but if you want early blooming plants, such as petunias, asters, zinnias, ageratum, and phlox, better sow the seeds in pots or trays, in the hotbed. This way, you'll gain two or three weeks in the blooming period. However, most of the annual flowering plants can be sown in the open ground, right where you want them to grow. The only difference is, they are a little later in blooming."

"Well, could you tell me," I asked, "how to make a small hotbed? Perhaps I can get Uncle Ebenezer to make it, if you'll tell me just exactly how, so that I can explain it to him. What's the difference between a hotbed and a coldframe, anyway?"

"The main difference between a hotbed and a coldframe," explained W. R. B., "is that some form of heat, usually bottom heat, is provided in the case of the hotbed, but the coldframe depends mainly upon the heat of the sun, to keep it warm. The old-fashioned hotbed, filled with manure, is no longer practicable under most conditions."

"The modern hotbed is built alongside the house, and is heated with a coil of pipe, or a radiator connected with the house heating system. Sometimes the coils of pipe are buried in the soil of the hotbed, and in this way provide



bottom heat, as in the old-fashioned manure-heated hotbed. Quite often these hotbeds are built in the form of a pit, on the south side of the house, and have an opening into the basement. This makes a short of miniature greenhouse. As a rule, the hotbed pits connected with the house are built with brick or concrete walls, which are permanent and durable."

"What kind of sash do you cover the hotbed with?" I asked.

"Standard three-by-six foot hotbed sash. Each sash is glazed with three rows of double strength glass, bedded in putty, and fastened with special glazing points made for the purpose. Sash of this kind, glazed and painted, cost about \$4 apiece; three or four of these sash will make a nice hotbed. I know one gardener who has a hotbed located on the south side of his garage; it is heated with pipes connected with the garage heater. When the heating pipes are buried in the soil of the hotbed, they are spaced about 12 or 14 inches apart, and covered with at least 8 inches of soil -- 12 inches is better. One and one-fourth inch pipes are recommended for this purpose; they should be so placed that they will have a uniform grade, and provision should be made for drawing off the air that may accumulate in the pipes, just as in a house radiator."

"At what temperature should the soil of the hotbed be kept?" I asked W. R. B.

"That is an important question," he said. "As a rule, the temperature of the soil and the air in the hotbed should be below 70 degrees, for most plants. The temperature is controlled mainly by ventilation, which is secured by slightly raising the sash, during the day time."

"When should the bed be watered?" I asked next.

"Another good question," replied W. R. B. "Great care must be taken in watering the hotbed; it should be watered only when the weather is bright. The plants should be dried off thoroughly, after watering, by means of ventilation. If one is not careful about watering a hotbed, the plants are almost certain to be killed by the disease known as damping off. It really is quite discouraging to have a nice bed of plants in the hotbed, and then to have them suddenly lop over and die, as if a hard frost had struck them. Damping off is a mean disease; careful watering and plenty of ventilation are about the only ways of preventing its development. Any more questions, Aunt Sammy?"

"What about coldframes?" I asked. "Won't they take the place of hotbeds, and be a lot less trouble?"

"Yes, they are less trouble," said W.R.B. "A coldframe is just a hotbed without heat; in fact, you can run your hotbed as a hotbed during the earlier part of the spring season, and then let it cool down, and use it as a coldframe. I know some gardeners who build a hotbed in February or March; later they provide plenty of ventilation in the bed and use it as a coldframe, finally taking the sash off altogether, and allowing the plants to become adapted to outdoor conditions. Of course, they keep the sash close by, and put them on in case of frost. The care of the coldframe, as to watering and ventilation, is just the same as that of the hotbed, except that the coldframe is usually given more ventilation."

"I find a good coldframe a wonderful help, because I can grow lots of early vegetables in the frame. Then in the fall I continue to grow lettuce, parsley, radishes, and some other crops, right up into the winter. This year, I used lettuce from my coldframe here in Washington, D. C., until after New Year's. I'm still using parsley, whenever we want it for garnishing. In a very few days now, I'll get the coldframe started again, and we'll soon be having fresh spring vegetables for our table. There, Aunt Sammy, you've had quite a lengthy discourse on hotbeds and coldframes. Do you understand the subject thoroughly?"

"Well, better than I did. But I wish you'd give me some plans for making hotbeds and coldframes. Don't you have some pictures, and directions?"

W.R.B. looked through his file, and found some directions, which will make it much easier for me -- I mean for Uncle Ebenezer -- to make a hotbed. I also borrowed a copy of W.R.B.'s bulletin, called "The City Home Garden."

If you'd like to know more about town hotbeds and coldframes, or if you have questions about spring gardening, I suggest that you write to the Bureau of Plant Industry, United States Department of Agriculture, Washington, D. C. I'm sure your questions will be answered.

Tomorrow: "Pin-Wheel Cookies for the Cookie Jar."

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